

REMARKS

This Amendment is in response to the Office Action of May 6, 2004. In the Office Action, the Examiner indicated that Claims 1-18 are pending and rejected. With this Amendment, Claims 1, 9, 16 and 17 are amended, and Claims 1-18 are presented for reconsideration and allowance.

Claim Rejections - 35 USC §103

The Examiner rejected Claims 1-18 under 35 USC 103(a) over Pohl et al. U.S. Pat. 4,853,810 in view of Kakekado et al. U.S. Pat. 6,359,746.

With this Amendment, independent Claims 1, 9 and 17 are amended to include a limitation to the capacitive actuator including a capacitor plate that is on the slider, and an electrical lead (line or conductor) that directly connects the electrode tip to the capacitor plate. These limitations are disclosed in FIG. 8 and in the written disclosure from page 12, line 11 through page 13, line 2 of the present application.

Applicants have recognized that the electrode tip and the capacitor plate, which are both on the slider can simply be connected to one another by a lead to provide feedback for fly height. When energized by an energization source, the simple lead provides the required feedback without the need for any active electrical components such as an amplifier or any filtering between the electrode tip and the capacitor plate. Applicant has recognized that the output of the electrode tip provides a voltage output which changes amplitude as a function of fly height in a direction such that it can be directly applied along a lead to the capacitor plate to control the fly height.

The control arrangement taught in Pohl et al. requires an amplifier (such as amplifier 58 in FIG. 13 of Pohl) in order to provide amplification to drive a piezoelectric actuator, and various filtering components. The control arrangement taught in Kakekado et al. also requires active electronic circuits (such as

head flying control circuit 206 in FIG. 13) in order to drive an actuator. Neither Pohl et al. nor Kakekado et al. has recognized or utilized the complementary electrical characteristics of an electrode tip sensor and a capacitive actuator to eliminate the need for any active electronics for feedback control of the fly height. Neither Pohl et al. nor Kakekado et al., taken singly or in combination, teach or suggest control feedback that comprises a lead that directly connects the electrode tip to a capacitor plate as presently claimed in independent Claims 1, 9 and 17.

The features recited in the dependent claims 2-8, 10-16 and 18 are also believed to be patentable in combination with the features recited in the independent claims 1, 9 and 17 as presently amended.

Claims 1-18, as presently amended, are therefore believed to be in condition for allowance, and favorable action is requested.


An amendment is made to the specification to correct a typographical error in reference numbers.

The other art cited by the Examiner has been considered, and the Claims, as presently amended, are believed to be patentable over such art.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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